

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	106	("5504827" "4978503" "5011249" "5567178" "6423471" "4920366" "5047213" "5555338" "5841568" "5857043" "6021149" "6060334" "6115169" "6151430" "6181864" "6355496" "4859020" "5561549" "5867324" "4509209" "4810658" "4865456" "4893901" "5327512" "5835646" "6097871" "3874779" "3870396" "4135779" "4141515" "4077702" "4093339" "4294507" "4365862" "4383736" "4495412" "4758092" "4824388" "4884863" "4954864" "4961617" "4995689" "5007949" "5026135" "5062680" "5052776" "5030321" "5187008" "5192502" "5221563").pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L2	5738	385/14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L3	1179	385/47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L4	4564	385/31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L5	1150	385/901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L6	3551	385/129	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L7	2207	385/130	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55

## EAST Search History

L8	2085	385/131	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L9	1666	385/132	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L10	2388	385/49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L11	471	385/133	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L12	1774	250/227.11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L13	15941	L1 or L2 or L3 or L4 or L5 or L6 or L7 or L8 or L9 or L10 or L11 or L12	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/13 11:55
L14	548	((Waveguide or core) NEAR4 (mirror or reflect\$3)) WITH (semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3)	USPAT	OR	ON	2007/03/13 12:06
L15	136	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) SAME isolator	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/13 12:14
L16	784	((Waveguide or core) NEAR4 (mirror or reflect\$3)) WITH (semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3 or Tub\$4)	USPAT	OR	ON	2007/03/13 12:08

## EAST Search History

L17	11891	(substrate or die or chip or layer) WITH (fiber or fibre or waveguide or core) WITH (Cylind\$5 or tube)	USPAT	OR	ON	2007/03/13 12:09
L18	302	(substrate or die or chip or layer) WITH (fiber or fibre or waveguide or core) WITH (Cylind\$5 or tub\$4) WITH (via or (through adj hole) or (buried adj via))	USPAT	OR	ON	2007/03/13 12:36
L19	182	13 and 16	USPAT	OR	ON	2007/03/13 12:10
L20	182	19 not 15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/13 12:15
L21	302	18 not 15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/13 12:15
L22	481	20 or 21	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/13 12:23
L23	4	song.xa. and 22	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/13 12:24
L24	69	((substrate or die or chip or layer) WITH (fiber or fibre or waveguide or core) WITH (Cylind\$5 or tub\$4) WITH (via or (through adj hole) or (buried adj via))).clm.	USPAT	OR	ON	2007/03/13 12:39
L25	36	((substrate or die or chip or layer) WITH (fiber or fibre or waveguide or core) WITH (Cylind\$5 or tub\$4) WITH (via or (through adj hole) or (buried adj via))).clm.	US-PGPUB	OR	ON	2007/03/13 12:39
L26	0	24 not 22	US-PGPUB	OR	ON	2007/03/13 12:40
L27	36	25 not 22	US-PGPUB	OR	ON	2007/03/13 12:40

## EAST Search History

S1	19	("20020109074" "20020167013" "20030152354" "20040114854" "3777154" "0395455" "4151582" "5191219" "6408121" "6455878").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 04:41
S2	104	("5504827" "4978503" "5011249" "5567178" "6423471" "4920366" "5047213" "5555338" "5841568" "5857043" "6021149" "6060334" "6115169" "6151430" "6181864" "6355496" "4859020" "5561549" "5867324" "4509209" "4810658" "4865456" "4893901" "5327512" "5835646" "6097871" "3874779" "3870396" "4135779" "4141515" "4077702" "4093339" "4294507" "4365862" "4383736" "4495412" "4758092" "4824388" "4884863" "4954864" "4961617" "4995689" "5007949" "5026135" "5062680" "5052776" "5030321" "5187008" "5192502" "5221563").pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S3	4575	385/14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S4	1044	385/47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S5	3721	385/31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S6	1073	385/901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S7	2539	385/129	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47

## EAST Search History

S8	1941	385/130	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S9	1631	385/131	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:47
S10	1357	385/132	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:48
S11	2041	385/49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:48
S12	392	385/133	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:48
S13	2088	250/227.11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:48
S14	14066	S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/16 20:49
S15	4	("5835646").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 11:51

## EAST Search History

S16	104	("5504827" "4978503" "5011249" "5567178" "6423471" "4920366" "5047213" "5555338" "5841568" "5857043" "6021149" "6060334" "6115169" "6151430" "6181864" "6355496" "4859020" "5561549" "5867324" "4509209" "4810658" "4865456" "4893901" "5327512" "5835646" "6097871" "3874779" "3870396" "4135779" "4141515" "4077702" "4093339" "4294507" "4365862" "4383736" "4495412" "4758092" "4824388" "4884863" "4954864" "4961617" "4995689" "5007949" "5026135" "5062680" "5052776" "5030321" "5187008" "5192502" "5221563").pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S17	4575	385/14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S18	1044	385/47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S19	3721	385/31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S20	1073	385/901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S21	2542	385/129	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S22	1942	385/130	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38

## EAST Search History

S23	1631	385/131	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S24	1357	385/132	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S25	2041	385/49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S26	392	385/133	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S27	2088	250/227.11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:38
S28	14070	S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:39
S29	2	"20030152354".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/03/17 12:40
S30	1	("2003/0152354").URPN.	USPAT	OR	ON	2005/03/17 13:11
S31	465	((Waveguide or core) NEAR4 (mirror or reflect\$3)) WITH (semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3)	USPAT	OR	ON	2005/03/17 13:12
S32	129	S31 and S28	USPAT	OR	ON	2005/03/17 13:12
S33	233	((Waveguide or core) NEAR4 (mirror or reflect\$3)) NEAR3(semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3)	USPAT	OR	ON	2005/09/01 10:55

## EAST Search History

S34	82	S33 and S28	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/03/17 13:13
S35	10	("20020109074"   "20020167013"   "20030152354"   "20030179979"   "20040114854"   "3777154"   "4151582"   "5191219"   "6408121"   "6455878").PN. OR ("6829398"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/03/17 13:15
S36	1	("2003/0179979").URPN.	USPAT	OR	ON	2005/03/17 13:16
S37	1	("2002/0109074").URPN.	USPAT	OR	ON	2005/03/17 13:18
S38	1	("2003/0152354").URPN.	USPAT	OR	ON	2005/03/17 13:51
S39	0	"20020109074".pn. and spher\$3	USPAT	OR	ON	2005/03/17 13:52
S40	0	"20020109074".pn.	USPAT	OR	ON	2005/03/17 13:52
S41	1	"20020109074".pn. and spher\$3	US-PGPUB; USPAT	OR	ON	2005/03/17 13:53
S42	1	"20020109074".pn. and spher\$6	US-PGPUB; USPAT	OR	ON	2005/03/17 13:53
S43	673	korenaga.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/12 15:45
S44	0	korenaga-tauguhiro.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/12 15:45
S45	93	korenaga-tsuguhiro.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/12 15:45
S46	45548	ishida.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/12 15:45
S47	203	ishida-kaoru.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/12 15:47



## EAST Search History

S48	288	S45 or S47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/12 15:56
S49	2	"20030179979".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:16
S50	0	S49 and ("1210" or "1211")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:14
S51	0	S49 and ("1201" or "1208")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:17
S52	2	"20030179974".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:16
S53	0	S52 and ("1201" or "1208")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:16
S54	0	"200301709074".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:16
S55	0	"200201709074".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:17
S56	2	"20020109074".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:17
S57	1	S56 and ("1201" or "1208")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:17

## EAST Search History

S58	897	((Waveguide or core) NEAR4 (mirror or reflect\$3)) WITH (semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3 or shap\$3)	USPAT	OR	ON	2005/09/01 18:44
S59	104	("5504827" "4978503" "5011249" "5567178" "6423471" "4920366" "5047213" "5555338" "5841568" "5857043" "6021149" "6060334" "6115169" "6151430" "6181864" "6355496" "4859020" "5561549" "5867324" "4509209" "4810658" "4865456" "4893901" "5327512" "5835646" "6097871" "3874779" "3870396" "4135779" "4141515" "4077702" "4093339" "4294507" "4365862" "4383736" "4495412" "4758092" "4824388" "4884863" "4954864" "4961617" "4995689" "5007949" "5026135" "5062680" "5052776" "5030321" "5187008" "5192502" "5221563").pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S60	4650	385/14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S61	1002	385/47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S62	3796	385/31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S63	987	385/901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S64	2650	385/129	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56

## EAST Search History

S65	1813	385/130	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S66	1683	385/131	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S67	1328	385/132	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S68	2032	385/49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S69	392	385/133	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S70	1555	250/227.11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S71	13181	S59 or S60 or S61 or S62 or S63 or S64 or S65 or S66 or S67 or S68 or S69 or S70	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 10:56
S72	249	((Waveguide or core) NEAR4 (mirror or reflect\$3)) NEAR3(semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3)	USPAT	OR	ON	2005/09/01 18:35
S73	2	("2003/0179979").URPN.	USPAT	OR	ON	2005/09/01 11:01
S74	10	("20020109074"   "20020167013"   "20030152354"   "20030179979"   "20040114854"   "3777154"   "4151582"   "5191219"   "6408121"   "6455878").PN. OR ("6829398"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 11:02
S75	1	("2004/0114854").URPN.	USPAT	OR	ON	2005/09/01 11:03

## EAST Search History

S76	10	("20020109074"   "20020167013"   "20030152354"   "20030179979"   "20040114854"   "3777154"   "4151582"   "5191219"   "6408121"   "6455878").PN. OR ("6829398").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 11:04
S77	2	("2003/0152354").URPN.	USPAT	OR	ON	2005/09/01 11:06
S78	2	("2003/0152354").URPN.	USPAT	OR	ON	2005/09/01 11:12
S79	78	S72 and S71	USPAT	OR	ON	2005/09/01 11:27
S80	0	"20020096686".pn.	USPAT	OR	ON	2005/09/01 11:27
S81	2	"20020096686".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 11:27
S82	248	S58 and S71	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 11:44
S83	170	S82 not S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 11:44
S84	13	("5055426"   "5123078"   "5198008"   "5219787"   "5235663"   "5291574"   "5434935"   "5465860"   "5540346"   "5600741"   "5614765"   "5708303"   "6097864").PN. OR ("6480643").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 12:02
S85	62	("4897711"   "4919506"   "5066090"   "5073003"   "5093879"   "5357590"   "5390271"   "5420953").PN. OR ("5600741").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 12:05
S86	15	("4939682"   "5055426"   "5123078"   "5198008"   "5219787"   "5235663"   "5291574"   "5434935"   "5465860"   "5540346"   "5600741"   "5614765"   "5708303"   "6097864").PN. OR ("6324313").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 12:18

## EAST Search History

S87	3	("6236778"   "6324313"   "6453081").PN. OR ("6856721").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 12:21
S88	15	("4939682"   "5055426"   "5123078"   "5198008"   "5219787"   "5235663"   "5291574"   "5434935"   "5465860"   "5540346"   "5600741"   "5614765"   "5708303"   "6097864").PN. OR ("6324313").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 12:22
S89	22	("4221047"   "4693543"   "4730330"   "4756734"   "4760568"   "4861126"   "4901321"   "4919507"   "4950044"   "4979970"   "4989934"   "5057135"   "5116704").PN. OR ("5198008").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:06
S90	20	("4693543"   "4730330"   "4760568"   "4861126"   "4901321"   "4919507"   "4950044"   "4989934").PN. OR ("5123078").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:11
S91	15	("4939682"   "5055426"   "5123078"   "5198008"   "5219787"   "5235663"   "5291574"   "5434935"   "5465860"   "5540346"   "5600741"   "5614765"   "5708303"   "6097864").PN. OR ("6324313").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:14
S92	1	"6839476".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:28
S93	7	("20030128933"   "20030219217"   "4465333"   "6257771"   "6390690"   "6600853"   "6623177").PN. OR ("6839476").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:20
S94	1	"6810160".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:28
S95	10	("4732446"   "5168401"   "5195150"   "5263111"   "5513196"   "6328484"   "6457875"   "6491447"   "6731882").PN. OR ("6810160").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:31
S96	48	("3967877"   "4163953"   "4423922"   "4447118"   "4630255"   "4707064"   "4904036"   "4908333"   "4912022"   "4932743").PN. OR ("5195150"   "5263111").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/09/01 13:44

## EAST Search History

S97	19	("20020109074" "20020167013" "20030152354" "20040114854" "3777154" "0395455" "4151582" "5191219" "6408121" "6455878").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:30
S98	1	"3777154".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:30
S99	104	("5504827" "4978503" "5011249" "5567178" "6423471" "4920366" "5047213" "5555338" "5841568" "5857043" "6021149" "6060334" "6115169" "6151430" "6181864" "6355496" "4859020" "5561549" "5867324" "4509209" "4810658" "4865456" "4893901" "5327512" "5835646" "6097871" "3874779" "3870396" "4135779" "4141515" "4077702" "4093339" "4294507" "4365862" "4383736" "4495412" "4758092" "4824388" "4884863" "4954864" "4961617" "4995689" "5007949" "5026135" "5062680" "5052776" "5030321" "5187008" "5192502" "5221563").pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 0	4650	385/14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 1	1002	385/47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 2	3796	385/31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 3	987	385/901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35

## EAST Search History

S10 4	2650	385/129	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 5	1813	385/130	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 6	1683	385/131	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 7	1328	385/132	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 8	2032	385/49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S10 9	392	385/133	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S11 0	1555	250/227.11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S11 1	13181	S99 or S100 or S101 or S102 or S103 or S104 or S105 or S106 or S107 or S108 or S109 or S110	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/01 18:35
S11 2	487	((Waveguide or core) NEAR4 (mirror or reflect\$3)) NEAR3(semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 18:36

## EAST Search History

S11 3	487	((Waveguide or core) NEAR4 (mirror or reflect\$3)) NEAR3(semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 20:04
S11 4	1557	385/50	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 19:12
S11 5	1925	((Waveguide or core) NEAR4 (mirror or reflect\$3)) WITH (semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3 or shap\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 20:06
S11 6	2	"20030179979".pn. and plated	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 19:12
S11 7	2	"20030179979".pn. and plat\$7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 19:32
S11 8	294	S115 and S111	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 19:36
S11 9	85	S112 and S111	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/01 19:33
S12 0	14	((Waveguide or core) NEAR4 (mirror or reflect\$3)) NEAR3(semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3). clm.	US-PGPUB	OR	ON	2005/09/01 20:04



## EAST Search History

S12 1	70	((Waveguide or core) NEAR4 (mirror or reflect\$3)) WITH (semispherical or semi-spherical or sphere\$5 or hemispherical or hemi-spherical or cylind\$5 or semicylind\$5 or curv\$3 or shap\$3). clm.	US-PGPUB	OR	ON	2005/09/01 20:06
S12 2	56	S121 not S120	US-PGPUB	OR	ON	2005/09/01 20:06
S12 3	17	stevens-rick-c.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 04:42
S12 4	6	thorson-kevin-j.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 04:46
S12 5	17	S123 or S124	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 04:46
S12 6	0	("2005/0220413").URPN.	USPAT	OR	ON	2005/12/09 04:49
S12 7	973	385/47	USPAT	OR	ON	2005/12/09 04:49
S12 8	3698	385/31	USPAT	OR	ON	2005/12/09 04:49
S12 9	2611	385/33	USPAT	OR	ON	2005/12/09 04:49
S13 0	729	385/36	USPAT	OR	ON	2005/12/09 04:49
S13 1	2458	385/39	USPAT	OR	ON	2005/12/09 04:50
S13 2	1426	385/50	USPAT	OR	ON	2005/12/09 04:50
S13 3	1058	385/3	USPAT	OR	ON	2005/12/09 04:50
S13 4	630	385/35	USPAT	OR	ON	2005/12/09 04:50
S13 5	4457	385/14	USPAT	OR	ON	2005/12/09 04:50
S13 6	1891	385/49	USPAT	OR	ON	2005/12/09 04:50

## EAST Search History

S13 7	562	385/51	USPAT	OR	ON	2005/12/09 04:50
S13 8	1109	385/52	USPAT	OR	ON	2005/12/09 04:50
S13 9	3071	385/88	USPAT	OR	ON	2005/12/09 04:50
S14 0	1828	385/89	USPAT	OR	ON	2005/12/09 04:50
S14 1	2141	385/92	USPAT	OR	ON	2005/12/09 04:51
S14 2	1207	385/93	USPAT	OR	ON	2005/12/09 04:51
S14 3	13634	S127 or S128 or S129 or S130 or S131 or S132 or S133 or S134 or S135 or S136 or S137 or S138 or S139 or S140 or S141 or S142	USPAT	OR	ON	2005/12/09 05:02
S14 4	4375	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3))	USPAT	OR	ON	2005/12/09 05:04
S14 5	4013	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) AND (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) AND (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	USPAT	OR	ON	2005/12/09 05:00
S14 6	4013	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) AND (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) SAME (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	USPAT	OR	ON	2005/12/09 05:00

## EAST Search History

S14 7	2210	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) SAME (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	USPAT	OR	ON	2005/12/09 05:00
S14 8	286	((via or (through adj hole) or (buried adj via)) WITH (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit) WITH (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) SAME (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) SAME (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	USPAT	OR	ON	2005/12/09 05:01
S14 9	222	((via or (through adj hole) or (buried adj via)) WITH (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit) WITH (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	USPAT	OR	ON	2005/12/09 05:03
S15 0	61	S149 and S143	USPAT	OR	ON	2005/12/09 05:02
S15 1	489	((via or (through adj hole) or (buried adj via)) WITH (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit) WITH (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 05:06

## EAST Search History

S15 2	13634	S127 or S128 or S129 or S130 or S131 or S132 or S133 or S134 or S135 or S136 or S137 or S138 or S139 or S140 or S141 or S142	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 05:03
S15 3	10105	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 14:23
S15 4	346	((((via or (through adj hole) or (buried adj via)) NEAR9 (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit)) WITH (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 05:07
S15 5	121	((((via or (through adj hole) or (buried adj via)) NEAR9 (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit)) NEAR8 (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 05:07
S15 6	121	((((via or (through adj hole) or (buried adj via)) NEAR9 (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit)) NEAR8 (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)\	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 05:07

## EAST Search History

S15 7	121	((via or (through adj hole) or (buried adj via)) NEAR9 (fiber or fibre or waveguide) WITH (substrate or PCB or PWB or POB or board or circuit)) NEAR8 (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) WITH (coupl\$3 or reflect\$3 or mirror\$3 or split\$4 or Combin\$4 or prism\$4 or lens)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 06:55
S15 8	10	("20040042705" "20040091211" "20040101259" "5524679" "6757176").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 11:52
S15 9	31	("20020109074" "20020167013" "20030152354" "20040114854" "3777154" "0395455" "4151582" "5191219" "5198008" "5600741" "6324313" "6408121" "6450699" "6455878" "6832031" "6839476").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 12:59
S16 0	2	"6,839,476".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 12:59
S16 1	16	("4939682"   "5055426"   "5123078"   "5198008"   "5219787"   "5235663"   "5291574"   "5434935"   "5465860"   "5540346"   "5600741"   "5614765"   "5708303"   "6097864").PN. OR ("6324313").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/12/09 14:20
S16 2	122	((via or (through adj hole) or (buried adj via)) SAME (fiber or fibre or waveguide) SAME (substrate or PCB or PWB or POB or board or circuit) SAME (alter\$3 or chang\$3 or switch\$3 or direct\$3 or redirect\$3 or convert\$3)) SAME isolator	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/12/09 14:23

## EAST Search History

S16 3	104	("5504827" "4978503" "5011249" "5567178" "6423471" "4920366" "5047213" "5555338" "5841568" "5857043" "6021149" "6060334" "6115169" "6151430" "6181864" "6355496" "4859020" "5561549" "5867324" "4509209" "4810658" "4865456" "4893901" "5327512" "5835646" "6097871" "3874779" "3870396" "4135779" "4141515" "4077702" "4093339" "4294507" "4365862" "4383736" "4495412" "4758092" "4824388" "4884863" "4954864" "4961617" "4995689" "5007949" "5026135" "5062680" "5052776" "5030321" "5187008" "5192502" "5221563").pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S16 4	4811	385/14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S16 5	1048	385/47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S16 6	3933	385/31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S16 7	1004	385/901	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S16 8	2777	385/129	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S16 9	1859	385/130	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24

## EAST Search History

S17 0	1736	385/131	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 1	1368	385/132	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 2	2095	385/49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 3	405	385/133	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 4	1586	250/227.11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 5	13610	S163 or S164 or S165 or S166 or S167 or S168 or S169 or S170 or S171 or S172 or S173 or S174	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 6	14	S162 and S175	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/09 14:24
S17 7	2	"20050063637".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/12 05:01

## EAST Search History

S17 8	357	(US-20040114854-\$ or US-20020109074-\$ or US-20050046477-\$ or US-20050045989-\$ or US-20050035818-\$ or US-20020167013-\$ or US-20030152354-\$ or US-20030179979-\$ or US-20040135631-\$ or US-20040085149-\$ or US-20020096686-\$ or US-20050140461-\$ or US-20030219217-\$ or US-20030128933-\$ or US-20050063637-\$ or US-20040234224-\$ or US-20040190102-\$ or US-20040184755-\$ or US-20040005119-\$ or US-20030059147-\$ or US-20020118907-\$ or US-20020051599-\$ or US-20050259925-\$ or US-20020171890-\$ or US-20040091211-\$ or US-20040042705-\$).did. or (US-20040101259-\$ or US-20010016105-\$ or US-20050053350-\$ or US-20050220419-\$ or US-20050220413-\$ or US-20050210244-\$).did. or (US-5191219-\$ or US-0395455-\$ or US-6694076-\$ or US-5911018-\$ or US-5852688-\$ or US-6393172-\$ or US-6356389-\$ or US-5982969-\$ or US-5980831-\$ or US-5978524-\$ or US-5790727-\$ or US-5732177-\$ or US-5724463-\$ or US-5708739-\$ or US-5664032-\$ or US-5649037-\$ or US-5647036-\$ or US-5630004-\$ or US-5586212-\$ or US-5495541-\$ or US-5491762-\$ or US-6915044-\$ or US-6912332-\$ or US-6078704-\$ or US-6829398-\$ or US-6641290-\$). did. or (US-6614960-\$ or US-6483966-\$ or US-6563981-\$ or US-6553165-\$ or US-6915039-\$ or US-6912330-\$ or US-6934445-\$ or US-6786651-\$ or US-5291574-\$ or US-6496636-\$ or US-6496614-\$ or US-5488681-\$ or US-5450511-\$ or US-5357591-\$ or US-5297225-\$ or US-5212747-\$ or US-5103493-\$ or US-6493487-\$ or US-6490401-\$ or US-6741782-\$ or US-6728439-\$ or US-6722792-\$ or US-3777154-\$ or US-6570710-\$ or US-6522794-\$ or US-6830476-\$ or US-6810160-\$)	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/24 12:14
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## EAST Search History

S17 9	18	("20020114090" "20020176659" "20030021526" "3988614" "4834474" "4907851" "5414540" "5771320" "6072923").PN.	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/24 12:16
S18 0	16	("20020181853" "20020181853" "20030118288" "20040017977" "20050100264" "5611008" "5987202" "6869299" "6987906").PN.	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/24 12:22
S18 1	33	("20030039430" "20030118306" "20030152354" "20030161573" "20040114854" "20050189591" "5581643" "6324313" "6480643" "6563997" "6594409" "6603559" "6628854" "6633716" "6839488" "6879751" "7020364").PN.	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/24 12:27
S18 2	2	"20050220413"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/24 12:27
S18 3	0	(stababable adj optical adj coupling adj elements) and S182	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/24 12:28
S18 4	18	("4939682"   "5055426"   "5123078"   "5198008"   "5219787"   "5235663"   "5291574"   "5434935"   "5465860"   "5540346"   "5600741"   "5614765"   "5708303"   "6097864").PN. OR ("6324313").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/24 13:04